

## Lake Michigan Game Fish Life History



# Chinook Salmon

**Common Names:** Chinook salmon, king salmon, spring salmon, blackmouth, tschawytscha, chin, king, magnum, shaker

**Scientific Name:** *Oncorhynchus tshawytscha*

**Length:** 20-35 inches

**Weight:** 5-35 pounds

State Record: (8/25/83) 43 lbs., 3 oz. from Lake Michigan

**Identification:** Adults are iridescent green to blue-green on the back and top of head. The sides are silvery, turning to white on the belly. They have black spots (at least a few) on the upper half of their body and on all fins. Chinook differ from coho salmon and other Great Lakes salmonids by having grey or black mouth coloration with teeth set in black gums, a squared tail with spots on both halves, and 15-19 rays in the anal fin.

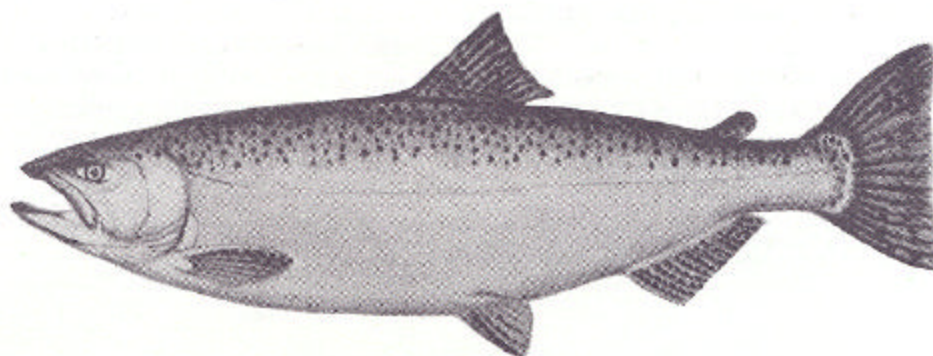
**Distribution:** Native to the Pacific Coast from southern California to northern Alaska and on the Asian shore south to Japan. Although introduced into the Great Lakes intermittently since 1877, they were not firmly established until massive plantings began in 1967. They are now found in all of the Great Lakes. In the Wisconsin waters of Lake Michigan, they are abundant from Kenosha, to Washington Island, and into Green Bay.

**Lake Michigan Sport Catch in Wisconsin:** 200,000-300,000 per year

**Preferred Temperature Range:** 50-57°F; 10-14°C

**Predators:** Adults: Sea lamprey, human

Juveniles: Large carnivorous fish, birds, and mammals



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In the 1960's, a large, fast-growing, predatory game fish was sought to assist in the Great Lakes fisheries rehabilitation program. One of the choices was the chinook salmon. Since massive plantings began in 1967, the chinook has become one of the most popular and sought after game fishes in the Great Lakes region. Its large size, tremendous fighting ability, and delicious flesh have lured fishermen from far and wide to catch the "king" of salmon.

In the Wisconsin waters of Lake Michigan, the chinook begins its life in the fish hatchery. This is because there is a lack of good stream spawning habitat and no successful natural reproduction occurs. Thus, the fishery is completely dependent upon stocking large numbers of fish. Chinook eggs are collected in late autumn at Strawberry Creek, Door County, by DNR personnel. The eggs hatch in January at Wild Rose and Westfield State Fish Hatcheries. Here they are raised to fingerlings, about two inches long, and then stocked in streams running into Lake Michigan during April or May. In 1982, the State of Wisconsin planted 2.35 million chinook in Lake Michigan at sites from Marinette to Kenosha. Once in the lake the fingerlings grow rapidly, increasing to 18 inches after only one year. The fish stay in the lake for 3 to 5 years before maturing and returning to the stream in which they were planted. Typical of all Pacific salmons, when the chinook mature they become darker colored and the male develops a hooked jaw, called a "kype". The mature salmon usually enter tributary streams from September to November to attempt to spawn. It is at this time that the DNR collects eggs for the next year's stocking.

The fast-growing chinook spend their life in the open lake, usually in water less than 100 feet deep, preying on alewife and smelt. One of the best methods to catch these fish is by trolling with a plug or spoon, using a down rigger to get the lure down to where the fish are.

Quite often a westerly wind causes cold, deeper water to upwell near the Wisconsin shore. When

this occurs, chinook tend to follow forage fish into the shallow waters. Many Chinook are caught there by shore and pier anglers casting with spoons or fishing with alewives. Chinook fishing generally begins in early June and is good through October along the shore from Kenosha, north to Gills Rock, and into Green Bay. Fishing is usually best in the early morning or late evening hours.

When the salmon begin to move upstream in the autumn, they continue to offer excellent sport fishing. Favorite baits include spawn bags (small bags of fish eggs), yarn flies, and streamer flies. A special snagging season is also offered in certain Lake Michigan streams during the daylight hours from October through January.

The chemical contaminant PCB (polychlorinated biphenyl) was once a severe problem with chinook salmon and other large fish of the Great Lakes. PCB is known to be harmful to laboratory animals, and is suspected of being harmful to man. Lately, however, the amount of PCB present in Great Lakes gamefish is showing signs of rapidly diminishing to tolerable levels or below. The contaminants concentrate in the body fats and can be minimized by removing the fatty portions of the fish while cleaning. The skin, strip of fat along the center of the back, and the belly flap should be removed, as well as the dark strip of flesh along the lateral line. Furthermore, smaller fish contain less fat (and less contaminants), and by cooking all fish in a manner that removes fat, such as broiling or barbecuing, the PCB levels in the fish flesh can be decreased even more.

The chinook planting program is largely supported by the Great Lakes sport fishermen through their purchase of a fishing license and the Great Lakes Salmon and Trout Stamp. The monies collected from stamp sales are used to pay for the salmon stocking program. In the future, the Department of Natural Resources intends to stock 2.1 million chinook salmon each year. This will help to ensure a continuation of excellent fishing in Lake Michigan.